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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,364	01/31/2001	Howard Andrew Heller	2504/0H466	3987
21005	7590	08/11/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				
		MACE, BRAD THOMAS	ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/773,364	HELLER, HOWARD ANDREW
	Examiner	Art Unit
	Brad T. Mace	2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-17 and 31-39 is/are allowed.
- 6) Claim(s) 18-30 is/are rejected.
- 7) Claim(s) 1, 9, 31, and 32 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract exceeds 150 words.

2. The abstract of the disclosure is objected to because LNS is not written out as to what it stands for on line 10. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: "to" is missing between "according" and "the" on line 20 of pg. 2. "access concentrator" should be capitalized on lines 6-7 of pg. 4. "Capability" should be lower case on line 15 of pg. 7. "101" should be "101" on line 32 of pg. 7. The following should be added between "PC 10" and "in" on line 22 of Figure 3: "(and CPE/LAC 101 becomes CPE/LAC 101)". "101" should be 101 on line 19 of pg. 10. Appropriate correction is required.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the

description: reference 17A in Figure 3. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because reference 101 should be 101' (corresponding to PC 100') in Figures 3 and 4. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 1, 9, 18, 28, 31, and, 32 are objected to because of the following informalities: "encapsulated" should be deleted on line 16 of claim 1. "encapsulated" should be deleted on line 20 of claim 1. "LNS" should be "(LNS)" on line 20 of claim 1. Between "frames;" and "and" on line 22 of claim 1, the following should be included: "further unencapsulating the PPP frames into IP packets;". On line 23 of claim 1, "unencapsulated PPP frames" should be replaced with "IP packets". "encapsulated" should be deleted on line 27 of claim 1. "encapsulated PPP frames" should be replaced with "packets" on line 32 of claim 1. "encapsulated PPP frames" should be "L2TP packets" on line 33 of claim 1. "encapsulated" should be deleted from line 12 of claim 9. "and" should be "wherein" on line 13 of claim 9. "unencapsulated" should be deleted from line 16 of claim 9. "unencapsulated" should be deleted from line 18 of claim 9. "Mobile IP Mobile Node" lacks antecedent basis on line 1 of claim 15 and "Mobile Node" should be in lower-case. "user device network" lacks antecedent basis on line 7 of claim 18. The word "and" is missing between "(PDA)," and "mobile" on line 3 of claim 28. "encapsulated" shoud be deleted from line 15 of claim 31. The following should be added between "frames," and "and" on line 19 of claim 31: "into IP packets". "PPP frames" should be "IP packets" on line 2 of claim 32. The following should be added between "encapsulated" and "into" on line 3 of claim 32: "into PPP frames and then".

"encapsulated PPP frames" should be replaced with "L2TP packets" on line 4 of claim

32. "encapsulated PPP frames" should be replaced with "packets" on line 9 of claim 32.

"encapsulated PPP frames" should be replaced with "L2TP packets" on line 10 of claim

32. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 18-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On line 1 of claim 18, what is being claimed is a system for transmitting information from a computer to a server. On line 5, "a user device" is specified, but is this user device the PC? The PC is shown in Figure 4, whereas a user device is not shown in the drawings (unless the user device is the PC). Terminology should remain consistent throughout the claim. Further, on lines 5-6, it does not make sense that the PC connected to the LAC via PPP for accessing itself. Should the PC be accessing the server? or LAC? Further, on line 7, what is the user device network? Further, is the Mobile IP mobile node referring to the PC? Or is it the same as the LAC? User device? The terminology and consistency needs to be addressed in claim 18.

9. Claim 28 contains the trademark/trade names Macintosh and Unix. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35

U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe user devices that can be connected to the LAC via PPP for accessing the computer and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 18, 20, 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of U.S. Patent No. 6,452,920 (Comstock).

Regarding claims 18, 29, and 30:

12. The admitted prior art discloses a system for transmitting information from a computer to a server (see reference PC 10, and Server 20 in Figure 3) comprising, a computer network (Figure 3 viewed as a whole is a computer network), a L2TP access concentrator (LAC) (references 16 and 18 of Figure 3), a user device (PC 10, Figure 3) connected to the LAC via PPP for accessing the LAC (see connection between PC 10 and Wireless CPE/LAC 101 in Figure 3, and lines 12-13 of pg. 4 of the specification), a

customer premise equipment (CPE) associated with the user device network (computer network) (see reference 101 of Figure 3), a home network (see references 23 and 20 of Figure 3 where in combination forms a home network), an LNS (L2TP network server) (see reference 23 of Figure 3), wherein a PPP session is terminated from the computer (since the PPP session is imitated from the end user on PC 10, as indicated on lines 12-13 of pg. 4 in the specification, then the PPP session can be terminated from the computer). However, the admitted prior art does not disclose expressly a customer premise equipment having a Mobile Internet protocol address assigned thereto, a home network where the Mobile IP address is registered, a Mobile IP mobile node, a Mobile IP foreign agent associated with a base station wherein the Mobile IP foreign agent is registered by the Mobile IP mobile node to a Mobile IP home agent associated with the home network wherein IP packets destined to the Mobile IP mobile node are encapsulated and forwarded to the registered Mobile IP foreign agent, and wherein an L2TP tunnel is terminated from the LAC.

Comstock discloses a home network with which the Mobile IP address (of a mobile node) is registered (col. 4, lines 57-67, through col. 5, lines 1-7, since the home network forwards the terminating packets to the mobile node and since the location information contained in the binding points to the last place where the mobile node registered, the Mobile IP address must therefore be registered on the home network, therefore, the customer premise device that exists in the corresponding node 100 (such as a modem since the link 102 transmits over the internet as indicated by lines 10-13 of col. 5) of Figure 2 would be assigned a Mobile IP address to register in the home agent

in order for the mobile node to know of its location when transmitting in reverse direction, as indicated by line 19-22 of col. 6), a Mobile IP mobile node (see Figure 2, reference 112), a Mobile IP foreign agent associated with a base station (see Figure 2, reference 108 and since transmitted information is to a mobile node, this states the use of a base station) wherein the Mobile IP foreign agent is registered by the Mobile IP mobile node to a Mobile IP home agent associated with the home network (col. 4, lines 44-51, where the terminating packets destined for a mobile node are received by a home network for the mobile node, the Mobile IP binding is used to obtain a forwarding or "care-of" address that identifies a foreign network to which the mobile node is attached, thus the Foreign agent is registered by the Mobile IP mobile node (terminating packets) to the Home Agent associated with the home network 105 of Figure 2) wherein IP packets destined to the Mobile IP mobile node are encapsulated and forwarded to the registered Mobile IP foreign agent (see Figure 2, where the Home Agent transmits an encapsulated packet (reference 207) forwarded to the Foreign Agent 108), and wherein an L2TP (layer 2 tunneling protocol) tunnel is terminated from the LAC (since a layer-2 tunnel is created between an LNS and an LAC, as indicated on lines 57-59 of col. 5, then the LAC can terminate the L2TP tunnel).

A person of ordinary skill in the art would have been motivated to employ Comstock in the admitted prior art in order to obtain a system for transmitting information from a computer to server by means of utilizing Mobile IP in order to maintain a networking connection when moving from one location to another. At the time the invention was made, therefore, it would have been obvious to one of ordinary

skill in the art to which the invention pertains to combine Comstock with the admitted prior art (collectively admitted prior art-Comstock) to obtain the invention in claim 18. The suggestion/motivation to do so would have been to use Mobile IP so that when the PC user moves from one location to another, the Internet (or networking) connection is not lost and furthermore, the reconnection is automatic and non-interactively, meaning that the reconnection is transparent to the user. (Since the reconnection is transparent to the user (on the PC) and since the LAC is connected to the PC, the PPP session is therefore transparent to the PC (computer) and LAC, and furthermore, since it is transparent to the PC and LAC, it is transparent to the corresponding LNS and server).

Regarding claim 20:

13. The admitted prior art further discloses wherein it is determined when the CPE is within range of a new base station (see Figure 3, references 101, 101', and lines 18-19 of pg. 4, where the PC is connected to the CPE and moves from the transmitting range of the base station 19 to that of base station 17 and initiates a new PPP session, meaning that it was determined the CPE was in range of a new base station).

Regarding claim 25:

14. The admitted prior art further discloses wherein the CPE comprises a mobile node functionality (as indicated by the wireless capability, see reference 101 in Figure 3) and LAC functionality (see reference 101 in Figure 3). However, the admitted prior art does not disclose expressly that the mobile node functionality works with Mobile IP functionality.

Comstock discloses a Mobile IP mobile node (see reference 112 of Figure 2).

A person of ordinary skill in the art would have been motivated to employ Comstock with the admitted prior art in order to obtain a CPE with Mobile IP mobile node functionality. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Comstock with the admitted prior art (collectively admitted prior art-Comstock) in order to obtain the invention as specified in claims 18 and 25. The suggestion/motivation to do so would have been to use customer premise equipment that does not lose its connection with the network when moving from location to another.

Regarding claim 26:

15. The admitted prior art further discloses wherein the CPE is co-located within the user device (lines 7-11 of pg. 4 of the specification, where the customer premise equipment is typically located at the customer's site, and the example of a modem is given in which it is commonly known that a modem can be placed in a user device (PC)).

Regarding claim 27:

16. The admitted prior art further discloses wherein the CPE is separately located from the user device (see Figure 3, references 10 and 101).

Regarding claim 28:

17. The admitted prior art discloses the user device as a PC (see Figure 3, reference 100).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

*Bender discloses a method and apparatus for providing mobility within a network.

*Verma et al. discloses a method and apparatus for handoff of a connection between network devices.

*W. Townsley et al. discloses Layer Two Tunneling Protocol "L2TP".

*C. Perkins discloses IP Mobility Support.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (703)-306-5454. The examiner can normally be reached on M-F, with the exception of every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Brad T. Mace
Examiner
Art Unit 2663

btm
August 2, 2004

Chau T. Nguyen

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600